



# YEAR OF CLEAN WATER

## Water Education Weekly Drops

(Week Five)

### Septic Tanks/Decentralized Wastewater Systems

The Environmental Protection Agency Office of Wastewater Management defines small under served communities as those that have 10,000 or fewer residents and that lack adequate wastewater treatment services. Despite strides made in addressing the wastewater needs of communities across the country, EPA recognizes the enormous wastewater needs of small under served communities. It has been estimated that small under served communities need \$13 billion to comply with the Clean Water Act.

#### Why is EPA Making Small Under Served Communities a Priority?

More than 70 percent of the nation's housing units that lack complete plumbing are in small communities. Nearly 1 million housing units in small communities still use outhouses or privies for sewage disposal. Over 19 million housing units in small communities use septic tanks or cesspools as the primary source of treatment.

EPA's goal is to administer programs through which small under served communities can access information, and obtain education, training and technical assistance to achieve adequate and cost effective wastewater systems.. Many communities could avoid costly construction projects through improved management skills, adequate financing, appropriate technology and better wastewater treatment system operation and maintenance.

EPA's New Initiative is developing voluntary national guidelines for the

management of onsite/decentralized wastewater systems which will address siting, performance, design and maintenance of decentralized systems. Decentralized wastewater treatment systems are onsite or cluster wastewater systems that are used to treat and reuse or dispose of relatively small volumes of wastewater, generally from individuals or groups of dwellings and businesses that are located relatively close together.

1. According to the US Census, what are the 3 commonly used types of wastewater disposal systems in the United States?
2. What is a septic system?
3. What other term is commonly used to describe septic systems?
4. What 5 things do you have to do to have a well performing septic system?
5. What is the primary reason why septic tanks fail?

**Answers:**

**1. According to the US Census, what are the 3 commonly used types of wastewater disposal systems in the United States?**

The 3 types are public sewers, septic tanks and "other" which means cesspools, privies and out houses.

**2. What is a septic system?**

A septic system is generally a home wastewater disposal system which uses tanks to temporarily hold sewage while solids partially decay, then the tanks release leftover liquids to be absorbed by an underground drainfield lined with sand or gravel. They are typically used in rural or large lot settings where centralized wastewater treatment is impractical or not available.

A septic system consists of a septic tank, a distribution box and a drainfield, all connected to pipes, called conveyance lines. The septic system treats household wastewater by temporarily holding it in a septic tank where heavy solids and lighter

scum are allowed to separate from the wastewater. The solids stored in the tank are decomposed by bacteria and later removed, along with the lighter scum, by a professional septic tank pumper. After partially treated wastewater leaves the tank, it flows into a distribution box, which separates this flow evenly into a network of drainfield trenches. Drainage holes at the bottom of each line allow wastewater to drain into gravel trenches for temporary storage. This effluent then slowly seeps into the subsurface soil where it is further treated and purified.

**3. What other term is commonly used to describe septic systems?**

"Onsite/decentralized wastewater treatment systems". They are systems that treat sewage from homes and businesses that are not connected to a centralized wastewater treatment plant.

**4. What 5 things do you have to do to have a well performing septic system?**

They must be properly selected, sited, designed, operated and maintained.

See the website below for specific actions to take to assure that your home septic system is functioning properly.

**5. What is the primary reason why septic tanks fail?**

Septics fail primarily because home owners do not have them pumped out on a regular basis which is approximately every 3-5 years.

**For further information, contact Les Reed at (215) 814-5772  
or go to: <http://www.epa.gov/reg3wapd/cso/index.htm>**

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